LEARNING THROUGH CO-DESIGN

Learning through Co-design: How Students and Educators Created a Digital Solution to Program Challenges
OUTLINE

About The Knowledge House
Problem Statement
Project Overview
Project Design Phases
MVP Design Phases
How Can Others Replicate This Process?
ABOUT THE KNOWLEDGE HOUSE

Founded in 2014, TKH is a nonprofit organization that empowers and sustains a talent pipeline of technologists, entrepreneurs, and digital leaders who will uplift their communities out of poverty.

Our program offerings are...

The Leaderboard is used in TKH programs to track student performance and engagement, as well as to develop technical and career skills through social and emotional learning activities.
PROBLEM STATEMENT

Why is this important?

Have you ever had a problem with student retention, student engagement, or keeping students motivated? The Knowledge House has been there!

In 2016, TKH’s young adult programs had student engagement and persistence challenges.

We spent a lot of time tracking data and trying to figure out what we could do to keep students engaged, when it hit us:

Why don’t we just ask them?

So we did... Their response? A digital tool that can be accessed at any time.

The solution?
Use design thinking to build a digital tool

The method?
Including program participants in the process of building.

Why should you try it?
✓ It's user-focused and user-informed
✓ It builds closer relationships between program participants and organization values
✓ It gives you an opportunity to empower youth
PROJECT OVERVIEW
The Knowledge House’s Leaderboard

The Leaderboard is a gamified key performance tracker that collects and organizes points assigned to any skills covered within a curriculum. It provides robust data on students' engagement and performance, while acting as a form of skills credentialing and rewards system.

Students can...

+1
earn “points” in lieu of letter grades

-1
lose points for poor attendance and missed work

view their classwide ranking at all times

access program expectations and self-monitor

win prizes and incentives for top rankings
LEADERBOARD DESIGN PHASES

Here's a timeline of the leaderboard design phases, as well as how students contributed throughout the process:

- **2016**
  - September 2016: TKH Ideates Leaderboard

- **2017**
  - April 2017: First Leaderboard MVP Created
  - September 2017: Second Leaderboard MVP Created
  - **All TKH students are onboarded to digital Leaderboard and share feedback**

- **2018**
  - April 2018: TKH holds Alumni Town Hall to discuss skills and employment needs
  - TKH hires Web Dev alum to prototype Leaderboard
  - March 2018: TKH Begins Planning Third Leaderboard MVP

- **2019**
  - September 2018: TKH hires UX/UI alum to help design and test prototype

January 2019: TKH Begins Developing Third Leaderboard MVP (Projected)
MVP DESIGN PHASES

Minimum Viable Product
A version of a new product which allows a team to collect the maximum amount of validated learning about users with the least effort.

“If you are not embarrassed by the first version of your product, you’ve launched too late.”
Reid Hoffman
Founder, LinkedIn

TKH Leaderboard

MVP DESIGN PHASES

Spreadsheet → Digital Leaderboard → Unified Digital Learning Platform

MVP 1 → MVP 2 → MVP 3
LEADERBOARD MVP 1

User: Students, 16-30 years old

Actions:
1. View class-wide ranking
2. View individual progress
3. Track assignments and attendance data for entire program

Goal:
- Transparently self-monitor program progress and earn prizes for high performance

A snapshot of the Class Leaderboard view, modeled on Google Sheets.
LEADERBOARD MVP 1 | FEATURES & HIGHLIGHTS

STUDENT-INFORMED DESIGN APPROACH

😊 TKH’s Advanced program students help pilot MVP iteration and share feedback

FEATURES

★ Master spreadsheet with class-wide leaderboard view, organized by skills type and class rank
★ Individual student spreadsheets listing all program deliverables
★ Student dashboard with assignment points total and links to digital assets: LinkedIn Profile, Digital Portfolio, GitHub

HIGHLIGHTS

✓ Pilot students showed significant increase in SEL skills, including self-advocacy and academic behaviors
✓ TKH’s Leaderboard recognized as a promising practice for driving student SEL growth by Student Success Network
LEADERBOARD MVP 1 | PAINS & GAINS

PAINS:

- Time-consuming
- Tedious
- Offline, cannot be accessed 24/7

GAINS:

- Faster leaderboard updates
- More data security
- Easier access

OPPORTUNITIES:

- Automate inputting and sorting of data
- Use web-based platform instead of spreadsheet

TAKEAWAYS:

- First MVP doesn’t have to be perfect, it just has to work!
LEADERBOARD MVP 2

User: Students, 16-30 years old

Actions:
1. View class-wide ranking and data average
2. View individual progress
3. Track assignments and attendance for entire program
4. Submit assignments and extra credit

Goal:
- Transparently self-monitor program performance and access course materials 24/7
LEADERBOARD MVP 2 | FEATURES & HIGHLIGHTS

STUDENT-INFORMED DESIGN APPROACH

😊 All TKH students are onboarded to digital Leaderboard and share feedback

FEATURES

★ Fully integrated point system for course material
★ Leaderboard interface connected to digital learning platform and learning management system

HIGHLIGHTS

✅ Increased attendance and completion helped us secure funding to improve tool
✅ Noticeable increase in female participants’ performance and engagement
✅ Advanced program alumni had strong attendance and placement rates
LEADERBOARD MVP 2 | PAINS & GAINS

PAINS:
- Not user-friendly
- Third-party platform and dev team
- Limited functionality and access

GAINS:
- Increased student engagement with digital tool
- Live leaderboard updates
- Better interface
- Freedom of customization

OPPORTUNITIES:
- Simplify leaderboard interface
- Automate class-wide student sorting
- Display total points with complete assignments list
- Design points system based on content, not on 100% GPA scale

TAKEAWAYS:
- Use a digital tool that doesn’t limit your features’ functions
- Product developers are less likely to create a user-friendly MVP if they don’t know the users
LEADERBOARD MVP 3

User: Students, 16-30 years old

Actions:
1. View class-wide ranking and data average
2. View individual progress
3. Track assignments and attendance for entire program
4. Submit assignments and extra credit
5. Earn digital badges for skills

Goal:
- Transparently self-monitor program performance, access course materials 24/7, and become career-ready
LEADERBOARD MVP 3 | FEATURES & HIGHLIGHTS

STUDENT-INFORMED DESIGN APPROACH

😊 TKH holds Alumni Town Hall to discuss skills and employment needs
😊 TKH hires Web Development alum to prototype Leaderboard
😊 TKH hires UX/UI alum to help design and test prototype

FEATURES

★ Leaderboard interface connected to digital learning platform, learning management system, and admin reporting tool
★ Students receive points toward digital skills badges
★ Individual student profile serves as a resume that can be shared with potential employers

HIGHLIGHTS

✔ TKH received $25K from Capital One to improve Leaderboard
✔ TKH alumni hired to design, user test, and prototype MVP 3
✔ Leaderboard will be integrated into TKH’s first proprietary software, a Unified Digital Learning Platform (UDLP)
How will we scale leaderboard?

How do we minimize scope creep?

How do we keep all collected data secure?

What gamification features can be enhanced using visual design?
HOW CAN OTHER ORGS REPLICATE THIS PROCESS?

Develop Your Own Change Idea!
1. Clarify and refine your organizational goal/aim
2. Identify primary drivers
3. Identify secondary drivers
4. Generate a change idea

Get Your Students Involved!
- Collect user feedback
- Survey their interests and needs, use it in your design
- Hire them to help design/build the digital tool

Other Tips:
- Leverage outside resources and funding
- Consider using a lean / continuous improvement methodology
- Involve student-facing staff in the design process
- Do your research

When coming up with a change idea, consider the following questions:
- What is your goal?
- Who is your user?
- Where did you get the idea from?
- What is the change?
THANK YOU!

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